## **ABSTRACT**

The present invention provides a core network separation structure and a signal processing method between separated elements. In particular, an SGSN is divided into an SGSN server for control operations and an S-MGW for switching packet data, and a GGSN is divided into a GGSN server for control operations and a G-MGW for switching packet data. Signaling interfaces interface between the separated elements, SGSN server and S-MGW and between the GGSN server and the G-MGW.